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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SU-SYIN S. WU, NANCY C. CHU,
and SZU-MIN LIN

Appeal 2008-3274
Application 09/746,990
Technology Center 1700

Decided:¹ January 30, 2009

Before BRADLEY R. GARRIS, CHUNG K. PAK, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 4, 6, 8-10, 13, 15-17, 20, 21, 23-25, 27, and 28.² We have jurisdiction under 35 U.S.C. § 6(b).

¹The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

We AFFIRM.

The invention relates to an apparatus (appealed claims 1, 4, 6, 8-10, 13, 15, 21, and 23-25) and a method (appealed claims 16, 17, 20, 27, and 28) for delivering cleaning fluid, rinsing fluid, scrubbing fluid, or germicide to contact surfaces between parts of a medical device. (*See Spec. 1:10-12.*) Independent claims 1 and 16 are illustrative of the invention and are reproduced from the Appeal Brief, Claims Appendix, below:

1. A medical device comprising a first surface and a second surface, the first surface and second surface being adjacent to each other in facing relationship, being rotatable with respect to one another about a pivot point and having a contact area therebetween adjacent the pivot point, said medical device being made up of at least one material, said medical device comprising a plurality of projections on at least one of the first surface and second surface at the contact area, and wherein said projections are adapted to allow a fluid to flow around said projections whereby to enhance cleaning and sterilization processes which employ the fluid.

16. A method of cleaning, rinsing, scrubbing, disinfecting, or sterilizing a medical device having a first surface and a second surface adjacent to and in facing relation to reach [sic, each] other and which are rotatable with respect to one another about a pivot point and have a contact area therebetween at the pivot point, said method comprising; providing a plurality of projections on at least one of the first surface and second surface at the contact area; contacting said medical device with a fluid in a vessel; circulating said fluid in said vessel and contacting said medical device at the contact area with said fluid by flowing said fluid around the projections, said fluid being selected from the group consisting of a cleaning fluid, a rinsing fluid, a scrubbing fluid, a disinfecting fluid, and a sterilizing fluid.

² Claims 7, 22, and 26, the remaining claims pending in the Application, stand objected to as dependent on a rejected base claim. (Supplemental Examiner's Answer ("Ans.") 9-10, mailed January 8, 2008.)

The Examiner relies on the following prior art references to show unpatentability (Ans. 4 (8)):

Markham	5,176,699	Jan. 5, 1993
Schad	WO 96/30058	Oct. 3, 1996
Sackier	5,776,146	Jul. 7, 1998
Schad	5,935,537	Aug. 10, 1999 ³
Moyers	6,090,213	Jul. 18, 2000

Appellants request review of the following grounds of rejection⁴:

1. claims 1, 4, 6, 13, 15, 21, and 23-25 under 35 U.S.C. § 102(b) as anticipated by Markham;
2. claims 1, 4, 6, 13, 15, 21, and 23-25 under 35 U.S.C. § 102(b) as anticipated by Sackier;
3. claims 8-10⁵ under 35 U.S.C. § 103 as unpatentable over Markham or Sackier;
4. claims 16, 17, 27, and 28⁶ under 35 U.S.C. § 103 as unpatentable over Schad in view of Markham or Sackier; and

³ The Examiner relies on this reference as “the English language equivalent and 371 filing of WO 96/30058” (Ans. 4).

⁴ Since the filing of Appellants’ Amended Appeal Brief on January 29, 2007 (“Br.”), the Examiner has withdrawn the rejection of claim 7 under 35 U.S.C. § 112, second paragraph, and the rejection of claim 22 under 35 U.S.C. § 102(b). (Ans. 3.)

⁵ The Examiner notes that claim 10 was inadvertently omitted from the statement of the rejection in the Final Office Action (Ans. 3 (6).) The Examiner maintains that claim 10 was addressed in the Final Office Action. (Ans. 7.) Appellants have not filed a Reply Brief or otherwise objected to correction of this error in the Examiner’s Answer. Accordingly, we determine the inadvertent omission of claim 10 from the statement of the rejection is harmless error.

⁶ Appellants incorrectly identify claim 28 as being allowable. (Br. 2 (III); see Final Office Action, mailed January 5, 2006, Disposition of Claims.)

5. claim 20 under 35 U.S.C. § 103 as unpatentable over Schad in view of Markham or Sackier as applied to claim 16, and further in view of Moyers.

ISSUES

1. Have Appellants shown reversible error in the Examiner's finding that Markham discloses (1) a plurality of projections on at least one of two adjacent, facing surfaces at a contact area of the surfaces, and/or (2) that the projections allow fluid to flow around them?

2. Have Appellants shown reversible error in the Examiner's finding that Sackier discloses (1) a plurality of projections on at least one of two adjacent, facing surfaces at a contact area of the surfaces, and/or (2) that the projections allow fluid to flow around them?

3. Have Appellants shown reversible error in the Examiner's determination that one of ordinary skill in the art would have been motivated to use Schad's method of cleaning surgical instruments to clean the Markham and/or Sackier medical devices?

4. Have Appellants shown reversible error in the Examiner's determination that modification of Schad's method to include a vacuum as taught by Moyer would result in the method recited in appealed claim 20?

We answer each of these questions in the negative for the reasons well-stated in the Examiner's Answer, and further discussed below.

FINDINGS OF FACT (“FF”)

1. The Examiner, referencing figure 11 of Markham, finds that Appellants’ claimed “plurality of projections” reads on Markham’s “gear teeth . . . which are in contact at the contact point between the gears [58, 62]” (Ans. 5). The Examiner further finds that Markham’s gear teeth would permit fluid flow between them and promote better flow than two flat surfaces in contact. (Ans. 5-6.)
2. The Examiner, referencing figure 15 of Sackier, finds that Appellants’ claimed “plurality of projections” reads on the teeth on the curved surface of pawl 243 and on the surface of ratchet wheel 239 of Sackier’s medical device. (Ans. 6.) The Examiner further finds that Sackier’s teeth would permit fluid flow between them and promote better flow than two flat surfaces in contact. (Ans. 7.)
3. Appellants argue that Markham’s gear teeth and Sackier’s teeth “are not on the surfaces in facing relationship, and further they are not adapted to allow a fluid to flow around them to enhance cleaning and sterilization of the facing surfaces.” (App. Br. 4, 5.)
4. Appellants’ Specification (“the Specification” or “Spec.”) does not include an explicit definition of the term “facing surfaces.”
5. The Specification reads: “[t]he embodiments of the method and the apparatus can be applied wherever contact areas exist on a device” (Spec. 5:21-22). According to the Specification, “[t]he contact areas on the medical device can be due to a joint, a hinge, a box lock, or a mated surface. Devices with hinged surfaces include scissors, forceps, and clips. Typical medical devices with two or more parts

- having contact surfaces include scissors, forceps, holders, hemostats, or rongeurs.” (Spec. 14:15-19.)
6. According to the Specification, “[w]hen medical devices are made of two or more parts with contact areas between the parts, the parts are often movable . . . around a pivot.” (Spec. 14:3-5.) In an exemplary embodiment of Appellants’ invention, the device is a scissors and the pivot is a pin. (Spec. 14:5-6.)
 7. According to the Specification, the use of projections enhances penetration of cleaning fluids in the contact areas of a medical device. (*See, e.g.*, Spec. 11:9-20.) “More liquid flows around the plurality of projections on the contact surface than through the material of the medical device, thus cleaning, rinsing, scrubbing, disinfecting, or sterilizing the medical device and the contact areas between the two or more parts of the medical device.” (Spec. 15:20-23.)
 8. According to the Specification, “the plurality of projections [] can have the shapes of points, lines, or a combination of points and lines.” (Spec. 13:23-24.) The projections can be in random positions on the contact surface, in regular rows, and of equal or unequal heights. (*See* Spec. 13:10-19.)
 9. Claim 1 of Markham (emphasis added) reads:

A surgical device comprising:

a first upper rigid elongated shaft member keyed along a substantial portion of its length to a second lower rigid elongated shaft member for reciprocal movement therealong in parallel relation thereto;

handle means at one end of said first and second shaft members for grasping said device;

biasing means associated with said first and second shaft members for normally biasing said first shaft member in a direction laterally along said second shaft member;

an upper jaw member;

a lower jaw member;

said upper jaw member being pivotally connected to said upper shaft member and said lower jaw member being pivotally connected to said lower shaft member, each of said jaw members having a plurality of spaced teeth thereon, the teeth of one of said jaw members facing the teeth of the other of said jaw members; and

said jaw members being in meshing engagement whereby reciprocation of said upper shaft member in a direction sliding along said lower shaft member and toward said jaw members and parallel to said lower shaft member moves said upper jaw member in a counterclockwise direction whereby said lower jaw member, in meshing engagement with said upper jaw member, moves in a clockwise direction thereby moving the teeth of said jaw members together.

10. Claim 3 of Sackier (emphasis added) reads, in relevant part:

A surgical clamp, comprising:

a first jaw having a proximal end and a distal end, the first jaw having a first fixed set of teeth located near the proximal end of the first jaw;

a second jaw having a proximal end and a distal end, the second jaw having a second fixed set of teeth located near the proximal end of the second jaw;

moving means for moving the first jaw and the second

jaw between an open state wherein the distal end of the first jaw is spaced from the distal end of the second jaw to accept a body conduit, and a closed state wherein the distal end of the first jaw and the distal end of the second jaw are proximate to at least partially occlude the body conduit, the moving means being adaptable for moving the first fixed set of teeth in and out of mesh with the second fixed set of teeth;

the moving means being configured to receive a force from an external device, the force being sufficient to move the first jaw and the second jaw between the open state and the closed state;

the first jaw being rotatably secured to the second jaw near the respective first set of teeth and the second set of teeth, so that the first set of teeth and the second set of teeth can be moved in and out of mesh.

11. The Examiner finds that “Schad teaches a method of cleaning and disinfecting jawed surgical instruments, such as forceps and endoscopic instruments.” (Ans. 8.) The Examiner contends that it would have been obvious to have used Schad’s method “to clean and disinfect the jawed surgical instruments of [Markham and Sackier], as it has been shown to be effective in cleaning such.” (Ans. 8.)
12. Appellants argue that “Schad appears singularly unsuited to cleaning either of the instruments depicted by Markham and Sackier et al. . . . On[e] of skill in the art would not be motivated to use such a device on the instruments of either Markham or Sackier et al.” (App. Br. 5.)
13. With respect to claim 17, Appellants concede that “S[c]had changes the orientation of the entire device,” but argue that Schad “does not teach moving the parts of the device” as claimed. (App. Br. 6.)

14. Claim 17 recites “moving at least one of said at least two parts of said medical device.” (*See* Ans. 12.)
15. Schad discloses an apparatus and method for cleansing and disinfecting surgical instruments (col. 1, ll. 6-8), such as biopsy forceps (col. 1, l. 26). Schad discloses oscillating the surgical instrument while cleansing (claim 9).
16. The Examiner maintains that the claim 17 moving step is met by Schad’s oscillation step. (Ans. 12.)
17. The Examiner finds that the combined teachings of Schad with Markham or Sackier disclose the invention as claimed in claim 20 with the exception of the step of reducing pressure in the vessel. (Ans. 9.) The Examiner finds that Moyers “discloses a method of cleaning endoscopic implements wherein after cleaning a vacuum is pulled on the chamber in combination with the application of hot air in order to remove all moisture from the implements. See col.3, line 31 to col.4, line 5.” (Ans. 9.) The Examiner contends that it would have been obvious to also apply a vacuum in Schad’s method, as taught by Moyers, in order to shorten the drying time. (Ans. 9.)
18. Appellants concede that “Moyers employs a vacuum line to move gases,” but argue that “Moyers does not draw a vacuum to vaporize fluid and does not draw sufficient vacuum for such purpose.” (App. Br. 6.)
19. The Examiner points out that Moyer discloses that eductors used to pull a vacuum can exhaust air or any other gas used, and any moisture. (Ans. 13 (citing Moyers, col. 3, ll. 45-52).) The Examiner maintains that the vacuum drawn in Moyers would be sufficient to

assist in vaporization of any liquid left in the cleaned instruments.

(Ans. 13.)

PRINCIPLES OF LAW

During examination, claims terms must be given their broadest reasonable construction consistent with the specification. *In re Icon Health and Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007).

Anticipation requires that each limitation of a claim must be found in a single reference. *In re Donohue*, 766 F.2d 531, 534 (Fed. Cir. 1985). The law of anticipation does not require that the reference teach what the subject patent or application teaches. It is only necessary that the claims, as construed, “read on” something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or fully met by it. *See Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983). “A reference may be from an entirely different field of endeavor than that of the claimed invention or may be directed to an entirely different problem from the one addressed by the inventor, yet the reference will still anticipate if it explicitly or inherently discloses every limitation recited in the claims.” *In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997).

“Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claims limitations, it anticipates.” *Leggett & Platt, Inc. v. VUTEk, Inc.*, 537 F.3d 1349, 1354 (Fed. Cir. 2008) (finding patent claim requiring a cold UV source “effective to impinge sufficient UV light on the ink” to cure the ink inherently anticipated by patent disclosing LEDs which necessarily were “effective to impinge sufficient UV light on the ink to substantially cure the ink”) (*citing Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1376 (Fed. Cir. 2005))

(*quoting In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed.Cir.2002))). “Thus, a prior art reference may anticipate when the claim limitation or limitations not expressly found in that reference are nonetheless inherent in it.” *Leggett*, (*quoting MEHL/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999)).

Where . . . the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on ‘inherency’ under 35 U.S.C. § 102, on ‘prima facie obviousness’ under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products.

In re Best, 562 F.2d 1252, 1255 (CCPA 1977) (citations omitted). *See also*, *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990).

ANALYSIS

Appellants argue that Markham’s gear teeth and Sackier’s teeth are not on facing surfaces. (FF 3.) Appellants’ argument appears to be based on a contention that the term “facing relationship” is not intended to encompass all adjacent facing surfaces, but is limited to particular device surfaces, such as the surfaces between scissor blades. However, Appellants have not identified, nor do we find any language in the claims or Specification which warrants such narrow interpretation of the claims. (*See, e.g.*, FF 4-6.) Rather, we are in agreement with the Examiner’s findings that both

Markham's and Sackier's teeth are on adjacent surfaces in a facing relationship as claimed (FF 1, 2).

We are likewise unpersuaded by Appellants' arguments that Markham's gear teeth and Sackier's teeth are not adapted to allow fluid to flow around them to enhance cleaning (FF 3). In our view, the teachings of both references support the Examiner's findings (*see* Ans. 5-7, 11; FF 1, 2) that the configurations of Markham's and Sackier's teeth are such that they would enhance fluid flow between the contact areas (*compare* FF 7, 8 *with* FF 9 *and with* FF 10).

Accordingly, we determine that Appellants have not identified reversible error in the Examiner's rejections of claims 1, 4, 6, 13, 15, 21, and 23-25 under 35 U.S.C. § 102(b). Appellants do not present any additional substantive arguments in traversing the rejection of claims 8-10 under 35 U.S.C. § 103(a). (*See* App. Br. 5.) We have considered the arguments presented in connection with independent claim 1 as they pertain to limitations found in claims 8-10. However, we are not persuaded of error in the facts and reasons relied on by the Examiner in rejecting claims 8-10 (*see* Ans. 8) for the reasons explained above.

With respect to the rejection of method claims 16, 17, 20, 27, and 28, we determine that the Examiner set forth a reasonable basis to conclude that the claimed invention would have been obvious for the reasons well-stated in the Examiner's Answer (Ans. 8-9, and 12). Appellants have not identified error (FF 12, 13, and 18) in the facts and reasons relied on by the Examiner (*see* Ans. 12; FF 11, 14-17, and 19). Nor have Appellants proffered evidence to show that the Examiner's proposed combination would not

necessarily or inherently possess the characteristics of the claimed method.
(*See Br. in its entirety.*)

Accordingly, we conclude that Appellants have not shown reversible error in the Examiner's determination that one of ordinary skill in the art would have been motivated to use Schad's method of cleaning surgical instruments to clean the Markham and Sackier medical devices. Nor have Appellants shown reversible error in the Examiner's determination that modification of Schad's method to include a vacuum as taught by Moyer would result in the method recited in appealed claim 20.

CONCLUSION

We sustain the Examiner's rejections of:

claims 1, 4, 6, 13, 15, 21, and 23-25 under 35 U.S.C. § 102(b) as anticipated by Markham;

claims 1, 4, 6, 13, 15, 21, and 23-25 under 35 U.S.C. § 102(b) as anticipated by Sackier;

claims 8-10 under 35 U.S.C. § 103 as unpatentable over Markham or Sackier;

claims 16, 17, 27, and 28 under 35 U.S.C. § 103 as unpatentable over Schad in view of Markham or Sackier; and

claim 20 under 35 U.S.C. § 103 as unpatentable over Schad in view of Markham or Sackier as applied to claim 16, and further in view of Moyers.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

Appeal 2008-3274
Application 09/746,990

PL Initial:
sld

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